be properly appreciated. The movements of the jaw in talking and eating intensify it, and it is accompanied by marked constitutional disturbance and fever. Unless the accompanying swelling is considerable, the hearing-power is but little affected.

On inspecting the ear, which is often exquisitely tender, one or more reddened elevations, extremely painful from the commencement and particularly so when touched, may be observed. A boil at this stage may subside, or may become purulent, when a yellow point appears, from which pus discharges, finally followed by a necrosed core, after which healing takes place. Aural furuncula form mostly in the cartilaginous meatus, where the close connection between the skin and the dense periosteum accounts for the severity of the pain. The amount of accompanying swelling varies, and the whole meatus generally shares with, not uncommonly, the tragus and the neighbouring lymphatic glands. The introduction of a speculum is extremely painful often impossible—and the utmost gentleness is needed.

In *treating* this condition, everything which promotes congestion of the head and ear must be guarded against and the congestion relieved. The most valuable agent at disposal is that of local depletion by means of leeches, which should be applied, from two to six in number, just in front of the tragus.

The agonising pain demands the use of sedatives, and, for this purpose, there are few preparations better than Batley's "Liquor Opii Sedativus," given either in 5-minim doses every four hours or in one dose at night of half-a-drachm in camphor water. It is well, in the beginning, to start with a brisk saline purge.

In dealing locally with the condition, thorough antisepsis is of paramount importance. The meatus should be gently syringed with 1 in 2,000 Hydrarg. Solution, and the furuncles opened as Perchlor. soon as their sites can be identified. This had best be done under gas, as the little operation is an extremely painful one, and local anæsthesia, by cocain or eucain, is most unsatisfactory. The cocain or eucain, is most unsatisfactory. The head should be firmly fixed, the illumination as good as possible, and the knife sharp and firmly used. It is most important to incise the furuncle at the right spot to afford relief. The knife used should be a small straight-bladed one, or of the special hook-shaped form devised by Dundas Grant. Subsequent antiseptic treatment should be pursued. My usual plan is to swab the meatus thoroughly with Lister's strong mixture, and to order instillations of strong spirit twice or three times a day to be used at home.

Internally, calcium sulphide (gr.  $\frac{1}{10}$ , three times a day) has been recommended to prevent recurrence. Liquor Arsenicalis is certainly of value in some cases. It will, however, be found in practice that constitutional treatment according to the idiosyncrasy of the patient will be more successful than any attempt at a routine method.

Upon one important point it is necessary (although that point is one which should form a part of the perfect antisepsis insisted upon above) to lay stress. It is of no use to use antiseptic instillations such as pure spirit, or to give drugs internally to improve the general constitutional condition, unless the perfect cleanliness of the meatus is first ascertained. The following case sufficiently illustrates my meaning without further explanation :---

P. C. T., aged thirty-three, was sent to me in 1901 by his medical attendant. He had for several weeks past been suffering from repeated crops of aural boils, both ears being affected alternately. His doctor wrote that he had tried "everything," both local and constitutional, "including strong antiseptics," without avail. On examining the ears, I found both external auditory passages halffull of epithelial débris, mingled with wax, and from the left I removed an old plug of wool, of the presence of which the patient was unaware. Both canals were cleared out completely, and rendered thoroughly antiseptic, with the result that no further crops of boils occurred.

The collection of epithelial débris in this case, which undoubtedly formed a snug breeding-ground for the micro-organisms to which the boils were due, was somewhat similar, though less marked, to the condition known as keratosis obturans. This affection is due to a desquamation of the epidermis of the external meatus, and may be the result of inflammatory processes, or may arise spontaneously. It is the deeper parts of the canal, with the mem-brane, that are most affected, and the meatus becomes plugged by accumulations of dead epithelium. The symptoms are much the same as those due to plugging by cerumen. The condition may be bilateral or unilateral, and occurs more frequently in old people. I have often found such cases to have a gouty history, and I am of opinion that that disease is a predisposing cause.

The plugs of keratosis obturans are usually difficult to remove without previous treatment. The condition was first described by Wreden in 1874, who recommended the preliminary use of alkaline instillations, followed by syringing, the meatus being afterwards restored to its normal condition by the application of solutions of iodide of potassium or corrosive sublimate. More recently it has been found that solutions of salicylic acid (2 per cent.) give better results, followed by syringing or careful instrumental removal.

Otomycosis is due to the growth of a mould in the meatus. The fungi to which the affection is due are Aspergillus niger, flavus, and fumigatus, the first-named being the most commonly found,



